

IN THE CLAIMS

Claims 1, 3-4, 10, 14, 19-20, 22-23, 26, and 28-30 are amended herein. Claims 2, 16, 21, and 27 are canceled. All pending claims are produced below:

1. (Currently Amended) A computer implemented method for rolling back a system state after a modification failure, the method comprising the steps of:
 - a rollback manager creating a restore point on a computer;
 - the rollback manager storing a reboot indicator in non-reversible storage;
 - the rollback manager monitoring the reboot indicator to detect an unexpected reboot during deployment of a modification, the monitoring comprising:
 - and
 - the rollback manager detecting a reboot of the computer; and
 - the rollback manager determining based at least in part on the reboot indicator whether the reboot was expected or whether the reboot was unexpected; and
 - ~~the rollback manager configuring the computer responsive to the reboot indicator;~~
 - responsive to determining that at least one unexpected reboot occurred during the deployment of the modification, the rollback manager rolling back the system state of the computer according to the restore point.
2. (Canceled)
3. (Currently Amended) The method of claim 1 wherein the rollback manager creating a restore point on a computer further comprises:

the rollback manager auditing the computer and storing in non-reversible storage audit information concerning at least one item from a group of items consisting of:

- at least one currently executing system process;
- at least one currently executing user process; and
- at least one currently open listening port.

4. (Currently Amended) The method of claim 3, further comprising: ~~wherein the rollback manager configuring the computer responsive to the reboot indicator further comprises:~~

responsive to determining ~~the reboot indicator indicating~~ that no unexpected reboots occurred during the deployment of the modification[[,]]; the rollback manager re-auditing the computer[[,]] and comparing re-audit information to the stored audit information; and the rollback manager performing an appropriate action responsive to results of the comparison.

5. (Original) The method of claim 4 wherein the rollback manager performing an appropriate action responsive to the comparison further comprises:

responsive to the comparison revealing that at least one item from the initial audit is no longer present on the computer, the rollback manager rolling back the system state of the computer according to the restore point.

6. (Original) The method of claim 4 wherein the rollback manager performing an appropriate action responsive to the comparison further comprises:

responsive to the comparison revealing that all items from the initial audit are still present on the computer, the rollback manager deeming the computer stable.

7. (Original) The method of claim 6 wherein the rollback manager deeming the computer stable further comprises:

the rollback manager clearing the reboot indicator.

8. (Original) The method of claim 6 further comprising:

the rollback manager deploying rollback capability on the computer; and
the rollback manager storing, in non-revertible storage, information concerning deployment of the rollback capability on the computer; wherein the rollback manager deeming the computer stable further comprises the rollback manager disabling the deployed rollback capability.

9. (Original) The method of claim 4 further comprising:

the rollback manager waiting for a specified period of time before re-auditing the computer, and comparing re-audit information to the stored audit information.

10. (Currently Amended) The method of claim 4 further comprising:

the rollback manager repeating the following steps a specified number of times at specified intervals:

responsive to determining ~~the reboot indicator indicating~~ that no unexpected reboots occurred during the deployment of the modification[[,]]:

the rollback manager re-auditing the computer[[,]] and comparing re-audit information to the stored audit information;
and
the rollback manager performing an appropriate action responsive to results of the comparison.

11. (Original) The method of claim 1 further comprising:
the rollback manager configuring the reboot indicator to indicate that a modification is to be deployed.
12. (Original) The method of claim 11 further comprising:
the rollback manager configuring the reboot indicator to indicate that the deployment of the modification is expected to reboot the computer.
13. (Original) The method of claim 12 wherein the rollback manager configuring the reboot indicator to indicate that the deployment of the modification is expected to reboot the computer further comprises:
the rollback manager monitoring deployment of the modification; and
the rollback manager configuring the reboot indicator responsive to the deployment requesting a reboot of the computer.
14. (Currently Amended) The method of claim 1 wherein the rollback manager monitoring the reboot indicator to detect an unexpected reboot during deployment of a modification further comprises:
the rollback manager reading the reboot indicator, the reading performed after a reboot of the computer, and the reading performed before ~~the~~ a booting of an operating system.

~~the rollback manager determining, based on the reboot indicator, whether the
reboot was legitimate.~~

15. (Original) The method of claim 14 further comprising:
the rollback manager updating the reboot indicator to indicate the occurrence
of the reboot.
16. (Canceled)
17. (Original) The method of claim 1 wherein the reboot indicator comprises at least one
attribute from a group of attributes consisting of:
an indication of whether a reboot is expected;
an indication of a specific number of reboots that are expected;
a counter of executed reboots; and
an indication of whether a modification is being deployed.
18. (Original) The method of claim 1 further comprising:
the rollback manager deploying rollback capability on the computer; and
the rollback manager storing, in non-reversible storage, information concerning
deployment of the rollback capability on the computer.
19. (Currently Amended) The method of claim 18, further comprising: ~~wherein the roll-
back manager configuring the computer responsive to the reboot indicator further
comprises:~~
~~the rollback manager rolling back the system state of the computer according
to the restore point; and~~

responsive to the rollback manager rolling back the system state of the computer according to the restore point, the rollback manager disabling the deployed rollback capability.

20. (Currently Amended) A computer readable storage medium containing ~~[[a]]~~ an executable computer program product for rolling back a system state after a modification failure, the computer program product comprising:

program code for creating a restore point on a computer;

program code for storing a reboot indicator in non-reversible storage;

program code for monitoring the reboot indicator to detect an unexpected re-

boot during deployment of a modification, the monitoring comprising:

and

the rollback manager detecting a reboot of the computer; and

the rollback manager determining based at least in part on the reboot

indicator whether the reboot was expected or whether the reboot

was unexpected; and

~~program code for configuring the computer responsive to the reboot indicator.~~

program code for, responsive to determining that at least one unexpected re-

boot occurred during the deployment of the modification, rolling back

the system state of the computer according to the restore point.

21. (Canceled)

22. (Currently Amended) The computer readable medium of claim 20 further comprising:

program code for auditing the computer and storing in non-reversible storage
audit information concerning at least one item from a group of items
consisting of:
at least one currently executing system process;
at least one currently executing user process; and
at least one currently open listening port.

23. (Currently Amended) The computer readable medium of claim 22 further comprising:

program code for, responsive to determining the reboot indicator indicating
that no unexpected reboots occurred during the deployment of the
modification[[,]];
re-auditing the computer[[,]] and comparing re-audit information to the
stored audit information; and
~~program code for~~ performing an appropriate action responsive to results
of the comparison.

24. (Original) The computer readable medium of claim 23 further comprising:

program code for, responsive to the comparison revealing that at least one item
from the initial audit is no longer present on the computer, rolling back
the system state of the computer according to the restore point.

25. (Original) The computer readable medium of claim 23 further comprising:

program code for, responsive to the comparison revealing that all items from
the initial audit are still present on the computer, deeming the computer
stable.

26. (Currently Amended) A computer system for rolling back a system state after a modification failure, the computer system comprising:

- a creation module, configured to create a restore point on a computer;
- a storage module, configured to store a reboot indicator in non-reversible storage, the storage module being communicatively coupled to the creation module;
- a monitoring module, configured to monitor the reboot indicator to detect an unexpected reboot during deployment of a modification, further configured to detect a reboot of the computer, further configured to determine based at least in part on the reboot indicator whether the reboot was expected or whether the reboot was unexpected, the monitoring module being communicatively coupled to the storage module; and
- ~~a computer configuration module, configured to configure the computer responsive to input from the monitoring module concerning the reboot indicator, the computer configuration module being communicatively coupled to the monitoring module;~~
- a rollback module, configured to roll back the system state of the computer according to the restore point, responsive to input from the monitoring module indicating that at least one unexpected reboot occurred during the deployment of the modification, the rollback module being communicatively coupled to monitoring module.

27. (Canceled)

28. (Currently Amended) The computer system of claim 26 further comprising:

an auditing module, configured to audit the computer, the auditing module being communicatively coupled to monitoring module and to the storage module; wherein

the storage module is further configured to store, in non-revertible storage, audit information concerning at least one item from a group of items consisting of:

at least one currently executing system process;

at least one currently executing user process; and

at least one currently open listening port.

29. (Currently Amended) The computer system of claim 28 wherein:

the auditing module is further configured to re-audit the computer, responsive to input from the monitoring module indicating that no unexpected re-boots occurred during the deployment of the modification; the computer system further comprising

a comparison module, configured to compare re-audit information to the stored audit information, the comparison module being communicatively coupled to the auditing module and to the ~~computer configuration~~ rollback module; wherein

the ~~computer configuration~~ rollback module is further configured to perform an appropriate action responsive to input from the comparison module.

30. (Currently Amended) The computer system of claim 29 wherein:

the rollback module is further configured to roll back the system state of the computer according to the restore point, responsive to input from the comparison module indicating that at least one item from the initial au-

dit is no longer present on the computer, ~~wherein the rollback module is communicatively coupled to the comparison module.~~

31. (Original) The computer system of claim 29 further comprising:
 - a stability deeming module, configured to deem the computer stable, responsive to input from the comparison module indicating that all items from the initial audit are still present on the computer, the stability deeming module being communicatively coupled to the comparison module.
32. (Original) A computer implemented method for auditing a computer system state, the method comprising the steps of:
 - a rollback manager auditing the computer and storing in non-reversible storage information concerning at least one item from a group of items consisting of:
 - at least one currently executing system process;
 - at least one currently executing user process; and
 - at least one currently open listening port.